MEMORANDUM OF UNDERSTANDING between

Sandia Corporation, as manager and operator of Sandia National Laboratories and

The Federal Institute for Materials Research and Testing (Bundesanstalt für Materialforschung und -prüfung)

SUBJECT: Technical cooperation on issues associated with the backend of the nuclear fuel cycle.

INTRODUCTION.

The Federal Institute for Materials Research and Testing (BAM) is a senior scientific and technical Federal Institute with responsibility to the Federal Ministry of Economics and Technology (BMWi). The particular remit of the BAM is to advance safety in technology and chemistry, to test materials and systems (thereby analyzing the test results based on the applied principles of physics and chemistry and providing reference methods and reference materials), to promote the transfer of knowledge and technology in its key fields of research, to collaborate on the development of statutory regulations (e.g., safety standards and threshold limits) and to advise the German government, industry and international organizations on materials science and chemistry.

Sandia Corporation (Sandia) is a Delaware Corporation that manages and operates Sandia National Laboratories (SNL) pursuant to Contract No. DE-AC04-94AL85000 with the United States Department of Energy, National Nuclear Security Administration (DOE/NNSA). This Memorandum of Understanding is subject to the terms and conditions of the prime contract for the management and operation of SNL. All work done or action taken by Sandia must be performed in accordance with its prime contract.

Collectively, Sandia and BAM are the Participants; individually, each is the Participant.

- (a) <u>Background</u>. SNL and BAM are research laboratories that have strong expertise in technology development to enhance the safety of nuclear and radioactive material packaging, transportation, and storage. Both laboratories have substantial expertise and active programs associated with the back end of the nuclear fuel cycle and have a history of sharing programmatic and technical information.
- (b) <u>Purpose</u>. This Memorandum of Understanding (MOU) documents the relationship between the Participants to promote information exchange and jointly seek the development of research programs with a primary focus on advanced technologies associated with the back end of the nuclear fuel cycle.

Rev 10/2008

(c) <u>Policy</u>. Areas of cooperation will be focused on technology development to advance the safety of transportation of nuclear and radioactive materials. Cooperation will also address technology development in the areas of packaging and storage, as determined by SNL and BAM. Joint activities will include periodic meetings to facilitate information exchange and discuss priorities in research.

MANAGEMENT AND PROGRAM GUIDELINES.

- (a) <u>Management and Review</u>. The cooperation between SNL and BAM under this MOU may include the following form of activities:
 - ✓ Exchange of information,
 - ✓ Exchange of technical experts,
 - ✓ Cooperative research, and

For BAM:

- ✓ Other activities as are mutually agreed
- (b) <u>Prohibitions</u>. This MOU shall not be used to obligate or commit funds or as the basis for the transfer of funds. This MOU does not commit any Participant to take any actions; the actions of each Participant are independent of the actions of the other Participant. This MOU does not create a binding agreement; and is not enforceable in a court of law.
- (c) <u>Management Arrangements</u>. This MOU envisions direct communication between Sandia and BAM officials involved in managing the information to be exchanged.
- (d) In individual situations, this MOU may facilitate the creation of special project agreements that the Participants may enter into. However, this MOU does not represent a right to cooperation between the Participants.
- (e) BAM and Sandia appoint the following points of contact to manage cooperation between the Participants:

Name: Bornhard Droste Holger Völzke
Department: Safety of Transport Containers Safety of Storoge Containers

Email: bernhard. Arestela bam. de holger. voolzkela bam. de

Telephone: 449 30 81041330 +49 30 8164 1340

For Sandia:

Name: Ken Schenson

Rev 10/2008

Sandia MOU number _/2-5-6/8

Department: Adv. Nucl. Fuel (y de Technologies

Email: Koscren a sandia. gov

Telephone: +15058440074

ADMINISTRATION.

- (a) Patent and Technical Data. BAM and Sandia shall retain exclusive right, title, and interest to their individual underlying technologies. Neither Participant warrants that any information or technology disclosed to the other Participant shall be merchantable or fit for a particular purpose or free of claims of infringement from third parties.
- (b) Release of Information. Production or release to news media, to the general public, or any third party regarding the existence, nature, or purposes of this MOU shall require mutual written agreement of all Participants prior to its release. However, Participants recognize Sandia may have obligations under the Freedom of Information Act and its contract to disclose information notwithstanding this provision.

IMPLEMENTING AGREEMENTS.

The details of the levels of support to be furnished to one organization by the other with respect to funding will be developed in specific implementing agreements, if any, subject to availability of funds. Any agreements or project plans that set forth specific arrangements for program implementation shall be separately developed and agreed to in implementing agreements facilitated by this MOU. Specific funding and tasking will be established under such implementing agreements, if any. Appropriate patent and other intellectual property provisions shall be included in implementing agreements entered into by the Participants, including any provisions required under the contract for management and operation of SNL.

MISCELLANEOUS.

- (a) Each Participant should conduct the cooperation under this MOU in accordance with applicable laws and regulations to which is it subject, and international agreements to which its Government is a party.
- (b) This MOU is intended to document the relationship between the Participants without creating legally enforceable obligations upon the Participants. All actions documented in this MOU are subject to available funding from DOE to Sandia, and no liability

Sandia MOU number <u>12-5</u>-618

shall be imposed upon a Participant for failure to undertake any activity documented. This MOU does not create a legally binding contract between the Participants.

(e) This MOU shall remain in full force and effect for a period of 5 years from the date of the MOU. Either Participant may withdraw from this MOU in its sole discretion upon thirty (30) days written notice to the other Participants. Notice of withdrawal and any amendments or additions to this MOU must be made in writing.

SANDIA CORPORATION

Typed Name: Jill

Date: 2012 - 09 - 10

Bundesanstalt für Mateund -prüfung

By: ______Typed Mame: